



10/694158

#0096

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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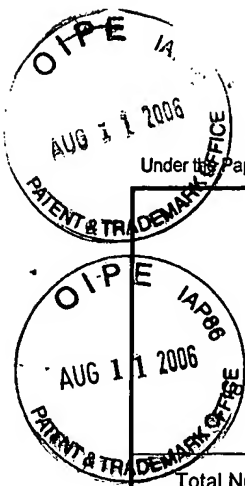
TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	Patent#: 7084480
	Filing Date	Issued: August 1, 2006
	First Named Inventor	Michel Bardouillet
	Art Unit	2814
	Examiner Name	H. B. Trinh
Total Number of Pages in This Submission	Attorney Docket Number	S1022.81057US00

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Request for Certificate of Correction <input checked="" type="checkbox"/> Certificate of Correction <input checked="" type="checkbox"/> Copy of Original Transmittal Letter <input checked="" type="checkbox"/> Copy of Declaration and Power of Attorney <input checked="" type="checkbox"/> Copy of the Notice of Allowability (mailed March 1, 2006) <input checked="" type="checkbox"/> Copy of Title Page of U.S. 7,084,480	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): Return Receipt Postcard
Remarks		Certificate of Correction AUG 15 2006

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature			
Printed name	James H. Morris		
Date	August 8, 2006	Reg. No.	34,681

Certificate of Mailing Under 37 CFR 1.8(a)	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Dated: August 8, 2006	Signature: (Gail Driscoll)

AUG 15 2006

**TRANSMITTAL
FORM***to be used for all correspondence after initial filing)*

Total Number of Pages in This Submission

Application Number

Patent#: 7084480

Filing Date

Issued: August 1, 2006

First Named Inventor

Michel Bardouillet

Art Unit

2814

Examiner Name

H. B. Trinh

Attorney Docket Number

S1022.81057US00

ENCLOSURES (Check all that apply)☐ Fee Transmittal Form☐ Fee Attached☐ Amendment/Reply☐ After Final☐ Affidavits/declaration(s)☒ Request for Certificate of Correction☒ Certificate of Correction☒ Copy of Original Transmittal Letter☒ Copy of Declaration and Power of Attorney☒ Copy of the Notice of Allowability
(mailed March 1, 2006)☒ Copy of Title Page of U.S.
7,084,480☐ Drawing(s)☐ Licensing-related Papers☐ Petition☐ Petition to Convert to a
Provisional Application☐ Power of Attorney, Revocation
Change of Correspondence Address☐ Terminal Disclaimer☐ Request for Refund☐ CD, Number of CD(s) _____☐ Landscape Table on CD☐ After Allowance Communication
to TC☐ Appeal Communication to Board of
Appeals and Interferences☐ Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)☐ Proprietary Information☐ Status Letter☒ Other Enclosure(s) (please
Identify below):

Return Receipt Postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENTFirm Name
WOLF, GREENFIELD & SACKS, P.C.

Signature

Printed name
James H. MorrisDate
August 8, 2006Reg. No.
34,681**Certificate of Mailing Under 37 CFR 1.8(a)**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: August 8, 2006

Signature:

(Gail Driscoll)

AUG 15 2006
AUG 15 2006

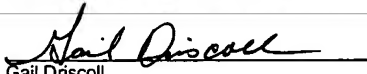


Docket No.: S1022.81057US00
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentee(s): Michel Bardouillet et al.
Serial No.: 10/694158
Confirmation No.: 3033
Filed: October 27, 2003
Patent No.: 7084480
For: RESISTIVE POLYSILICON ELEMENT CONTROLLABLE TO
IRREVERSIBLY DECREASE ITS VALUE

Examiner: H. B. Trinh
Art Unit: 2814

Certificate of Mailing Under 37 CFR 1.8(a)	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Attention: Certificate of Correction Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Dated: <u>August 8, 2006</u>	 Gail Driscoll

**REQUEST FOR CERTIFICATE OF CORRECTION
PURSUANT TO 37 CFR 1.323**

Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted typographical errors which should be corrected.

On the title page:

Item (30), which contains the foreign priority information, is missing. This application claims priority to French application No. 02 13690, filed October 31, 2002. This claim was made in the Declaration and Power of Attorney as well as on the original transmittal letter. The certified copy of the French priority application was filed on December 1, 2003 and the claim of

08/14/2006 MBIZUNE2 00000035 7084480
100.00 OP
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AUG 15 2006

priority was acknowledged on the Notice of Allowability mailed from the Patent Office on March 1, 2006.

Item (30) should read:

(30) **Foreign Application Priority Data**
Oct. 31, 2002 (FR)02 13690

Additionally, the Abstract contains a typographical error. The error, found in line 4 of the Abstract, the word "lemen", is an inadvertent typographical error, the correction of which does not involve new matter or require reexamination.

Line 4 of the Abstract should read:

--element; and an assembly of switches, connected to turn the--

The error found in the Abstract was erroneously inserted in the Preliminary Amendment filed by Patentee. Our check in the amount of \$100.00 covering the fee set forth in 37 CFR 1.20(a) is enclosed.

Transmitted herewith is a proposed Certificate of Correction effecting such amendments. Patentee respectfully solicits the granting of the requested Certificate of Correction.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23/2825, under Docket No. S1022.81057US00. A duplicate copy of this paper is enclosed.

Dated: August 8, 2006

Respectfully submitted,

By: 

James H. Morris
Registration No.: 34,681
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
(617) 646-8000

Aug 15 2006



Declaration and Power of Attorney for Patent Application

Déclaration et Pouvoirs pour Demande de Brevet

French Language Declaration

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:

Mon domicile, mon adresse postale, et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

RESISTIVE POLYSILICON ELEMENT CONTROLLABLE TO IRREVERSIBLY DECREASE ITS VALUE

et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:

☐ a été déposée le _____ sous
le numéro de demande des Etats-Unis ou le
numéro de demande international PCT

☐ les spécifications portant le dossier de l'avocat
numéro _____
et modifiée le _____
(le cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, §1.56 du Code fédéral des réglementations.

the specification of which is attached hereto unless one of the following boxes is checked:

☐ was filed on _____
as United States Application Number or PCT
International Number _____

☐ the specification of which bears attorney
docket No. _____
and was amended on _____
(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

French Language Declaration

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 363(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

Prior foreign application(s)
Demande(s) de brevet antérieure(s)

02/13690 FRANCE
(Number) (Country)
(Numéro) (Pays)

(Number) (Country)
(Numéro) (Pays)

Je revendique par le présent acte tout bénéfice, en vertu du Titre 35 § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.

(Application No.) (Filing Date)
(N° de demande) (Date de dépôt)

(Application No.) (Filing Date)
(N° de demande) (Date de dépôt)

Je revendique par le présent acte, le bénéfice, en vertu du Titre 35 § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code Fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande.

(Application No.) (Filing Date)
(N° de Demande) (Date de Dépôt)

(Application No.) (Filing Date)
(N° de Demande) (Date de Dépôt)

Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign applications(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed:

31 OCTOBER 2001
(Day/Month/Year Filed)
(Jour/Mois/Année de dépôt)

(Day/Month/Year Filed)
(Jour/Mois/Année de dépôt)

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or § 365(c) of any PCT international application(s) designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Status) (Patented, pending abandoned)
(Statut) (breveté, en cours d'examen, abandonné)

(Status) (Patented, pending abandoned)
(Statut) (breveté, en cours d'examen, abandonné)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

AUG 15 2004

French Language Declaration

POLVOIR: En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'il(s) poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec l'Office des brevets et des marques comme défini par le numéro d'enregistrement du cabinet.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith as defined by Customer Number



23628

et les avocats et/ou agents suivants:

and the Practitioners named below:

Lisa K. Jorgensen, Reg. No. 34,845
Mario J. Donato, Jr, Reg. No. 37,316
Nainesh Shah, Reg. No. 40,166

Addresser toute correspondance à:

Address correspondence to:


James H. Morris
Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue, Boston, MA 02210-2211 (USA)

Addresser tout appel téléphonique à: (Nom et numéro de téléphone)

Direct Telephone Calls to: (name and telephone number)

James H. Morris
(617) 720-3500

Nom complet de l'unique ou premier inventeur		Full name of sole or first inventor	
BARDOUILLET Michel			
Signature de l'inventeur	Date	Inventor's signature	Date
BARDOUILLET michel			23.08.03
Domicile		Residence	
13790 ROUSSET, FRANCE			
Nationalité		Citizenship	
FRENCH			
Adresse Postale		Post Office Address	
Quartier Fontjuane			
Nom complet du second co-inventeur, le cas échéant		Full name of second or joint inventor	
MALHERBE Alexandre			
Signature de l'inventeur	Date	Inventor's signature	Date
MALHERBE Alexandre	23/03/03		
Domicile		Residence	
13530 TRETS, FRANCE			
Nationalité		Citizenship	
FRENCH			
Adresse Postale		Post Office Address	
Lotissement Cabassude Bât. 25, Avenue Grisoie			
(Fournir les mêmes renseignements et la signature de tout co-inventeur supplémentaire.)		(Supply similar information and signature for third and subsequent joint inventors.)	

	Application No.		Applicant(s)	
	10/694,158		BARDOUILLET ET AL.	
	Examiner		Art Unit	
	Vikki H. Trinh		2814	

Notice of Allowability

MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/14/05.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has **THREE MONTHS FROM THE "MAILING DATE"** of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in **ABANDONMENT** of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

15

AUG 15 2006



UTILITY PATENT APPLICATION TRANSMITTAL <small>(Only for new nonprovisional applications under 37 CFR 1.53(b))</small>	Docket No.	S1022.81057US00
	First Named Inventor or Application Identifier	
	Michel BARDOUILLET t al.	
	Express Mail Label No.	EV 292 561 945 US
	Date of Deposit	October 27, 2003

APPLICATION ELEMENTS <small>See MPEP chapter 600 concerning utility patent application contents</small>	ADDRESS TO: Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450
<p>1. <input checked="" type="checkbox"/> Fee Transmittal Form <i>(Submit an original, and a duplicate for fee processing)</i></p> <p>2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.</p> <p>3. <input checked="" type="checkbox"/> Specification [Total pages 14] 11 - pages description 1 - pages abstract 2 - pages claims 9 - Total claims</p> <p>4. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) [Total sheets 3] <input type="checkbox"/> Informal <input checked="" type="checkbox"/> Formal [Total drawings 1-5]</p> <p>5. <input checked="" type="checkbox"/> Oath or Declaration [Total pages 3] a. <input checked="" type="checkbox"/> Newly executed (original or copy) b. <input type="checkbox"/> Copy from a prior application i. <input type="checkbox"/> <u>DELETION OF INVENTOR(S)</u> Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</p> <p>If 5b is checked the entire disclosure of prior applications, Serial No. _____ from which an oath or declaration is supplied, is considered as part of the disclosure of the accompanying application as is hereby incorporated by reference therein. The incorporation <u>can only</u> be relied upon when a portion has been inadvertently omitted from the submitted application parts.</p> <p>6. <input type="checkbox"/> Application Data Sheet, See 37 CFR 1.76</p>	<p>7. <input type="checkbox"/> CD-ROM or CD-R, in duplicate, large table or Computer Program (Appendix)</p> <p>8. <input type="checkbox"/> Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. <input type="checkbox"/> Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper (identical to computer copy) c. <input type="checkbox"/> Statement verifying identity of above copies</p> <p>ACCOMPANYING APPLICATION PARTS</p> <p>9. <input checked="" type="checkbox"/> Assignment Papers/cover sheet & documents(s)</p> <p>10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <i>(when there is an assignee)</i> <input type="checkbox"/> Power of Attorney</p> <p>11. <input type="checkbox"/> English Translation of Document <i>(if applicable)</i></p> <p>12. <input checked="" type="checkbox"/> Information Disclosure Statement PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations</p> <p>13. <input checked="" type="checkbox"/> Preliminary Amendment</p> <p>14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <i>(Should be specifically itemized)</i></p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i></p> <p>16. <input type="checkbox"/> Request and Certification Under 35 U.S.C. §122(b)(2)(B)(ii)</p> <p>17. <input type="checkbox"/> Other: _____ _____</p>
17a. PURSUANT TO 35 U.S.C. §119, APPLICANTS HEREBY CLAIM PRIORITY TO FRENCH PATENT APPLICATION NO. 02/13690, FILED OCTOBER 31, 2002.	

22387 U.S.P.T.O.
10/694158
102703



(12) **United States Patent**
Bardouillet et al.

(10) **Patent No.:** **US 7,084,480 B2**

(45) **Date of Patent:** Aug. 1, 2006

- (54) RESISTIVE POLYSILICON ELEMENT CONTROLLABLE TO IRREVERSIBLY DECREASE ITS VALUE

- (75) Inventors: **Michel Bardouillet**, Rousset (FR);
Alexandre Malherbe, Trets (FR)

- (73) Assignee: STMicroelectronics S.A., Montrouge
(FR)

- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

- (21) Appl. No.: 10/694,158

- (22) Filed: **Oct. 27, 2003**

- (65) **Prior Publication Data**
US 2004/0085182 A1 May 6, 2004

- (51) Int. Cl.
H01L 29/00 (2006.01)

- (52) U.S. Cl. 257/529; 257/30

- (58) **Field of Classification Search** 257/529,
257/312, 566, 595, 538, 50, 530; 365/100,
365/189.03

See application file for complete search history.

- (56)
- References Cited**

U.S. PATENT DOCUMENTS

- | | | | | |
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- | | | | | |
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| 2002/0027793 | A1 | 3/2002 | Johnson et al. | |

FOREIGN PATENT DOCUMENTS

- | | | |
|----|---------------|--------|
| DE | 198 39 141 A1 | 3/2000 |
| DE | 101 01 575 A1 | 7/2002 |

OTHER PUBLICATIONS

French Search Report from French Patent Application No. 02/13458, filed Oct. 28, 2002.

French Search Report from French Patent Application No. 02/13457, filed Oct. 28, 2002.

French Search Report from French Patent Application No. 02/13694, filed Oct. 31, 2002.

Kato K. et al. "A Physical Mechanism of Current-Induced Resistance Decrease In Heavily Doped Polysilicon Resistors" IEEE Transactions on Electron Devices, IEEE Inc. New York, US, vol. 29, No. 8, Aug. 1982, pp. 1156-1161.

* cited by examiner

Primary Examiner—Howard Weiss

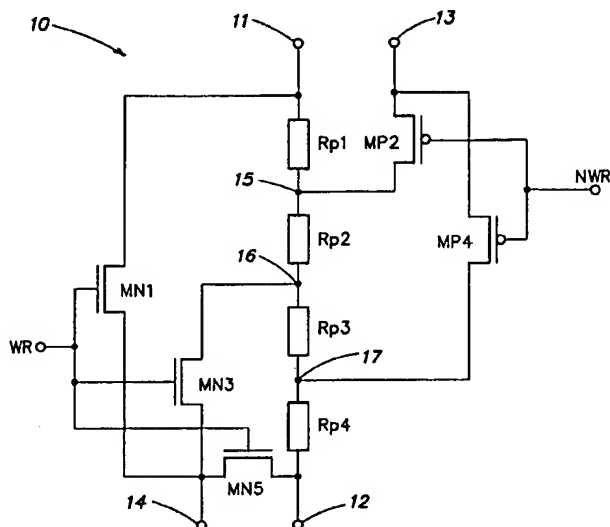
Assistant Examiner—(Vikki) Hoa B. Trinh

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- (57)
- ABSTRACT**

A resistive element controllable to irreversibly decrease its value, including several polysilicon resistors connected in series between two input/output terminals of the resistive lumen; and an assembly of switches, connected to turn the series connection into a parallel association of said resistors between two programming terminals intended to receive a supply voltage.

19 Claims, 3 Drawing Sheets



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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 7084480
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INVENTOR(S) : Michel Bardouillet et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (30) should read:
(30) Foreign Application Priority Data
Oct. 31, 2002 (FR)02 13690

In the Abstract, line 4 should read:
element; and an assembly of switches, connected to turn the

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